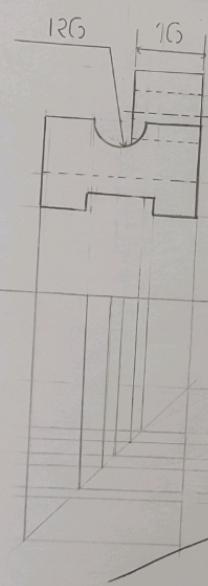


1

R.H.S.V.



F.V.

1211

112

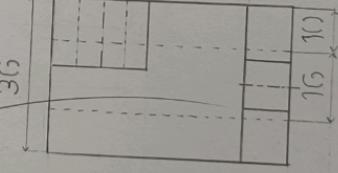
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55

36

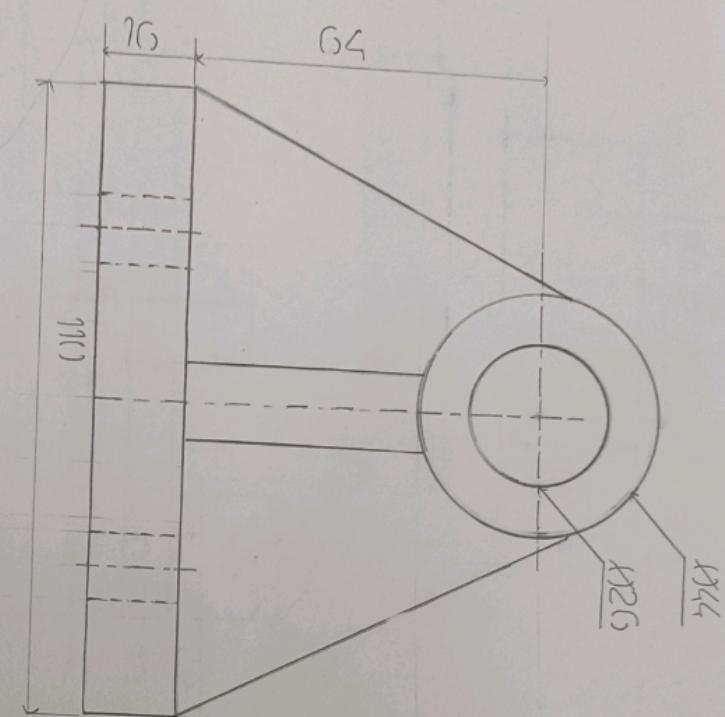
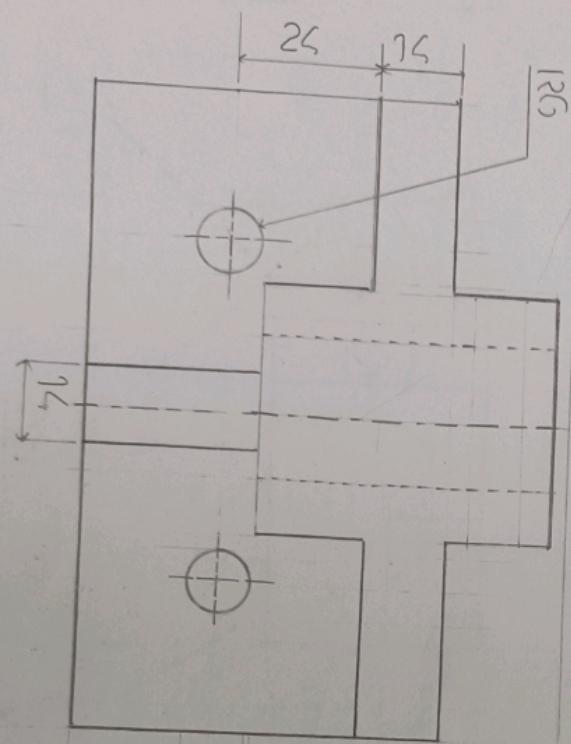
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T.V.

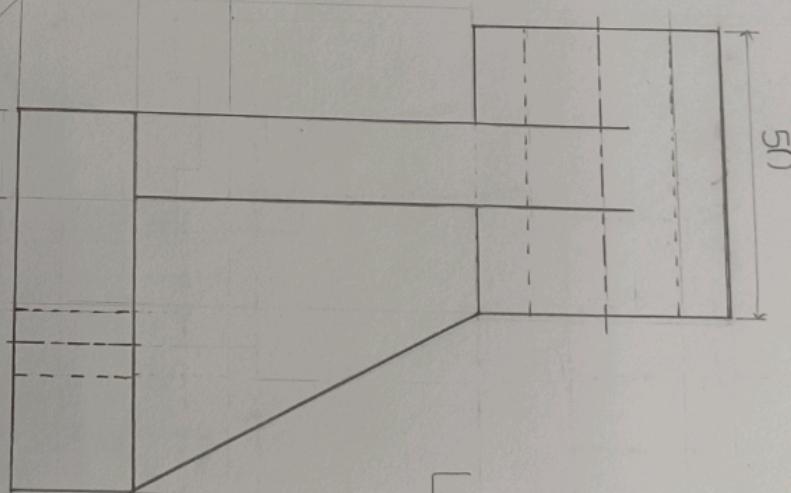


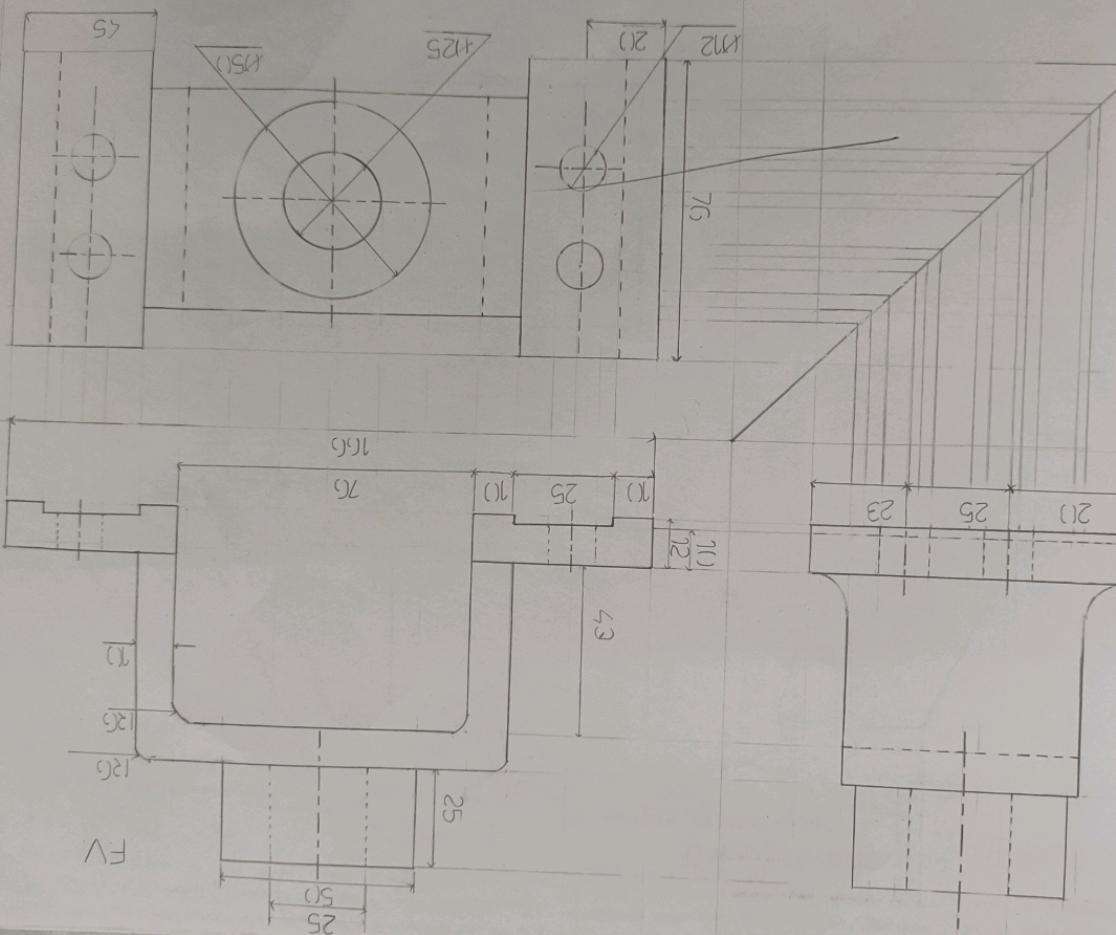
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F.V.



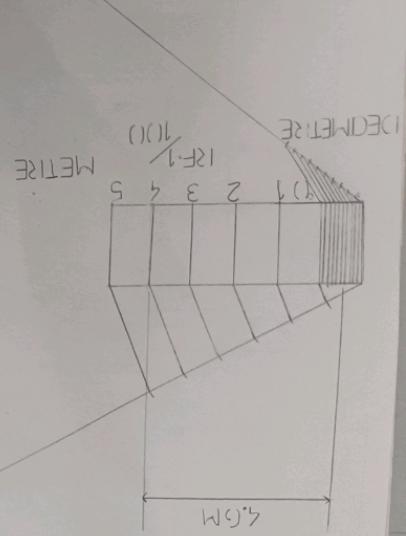
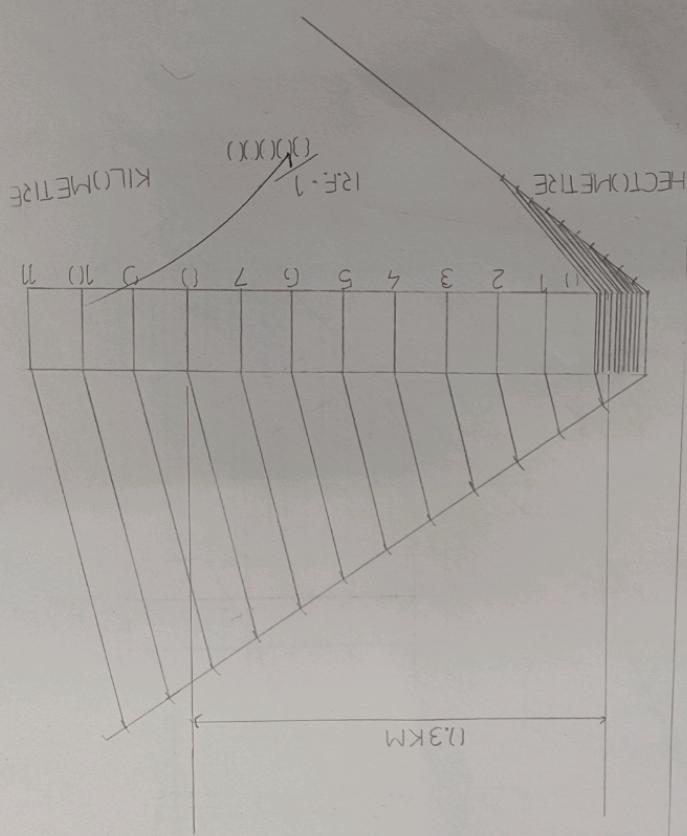
L.H.S.V.





3

13HSV



1. DRAW A SCALE 1cm = 1m TO READ DECIMETERS
2. IN A MAP A 20cm DISTANCE IS SHOWN BY CLINIC 90cm LONG
CALCULATE THE RF AND CONVERT IT TO PLAIN SCALE TO READ KILOMETERS
AND HECTOMETERS. FOR MAX. 12 MM. SHOW A DISTANCE OF 2.3 KM ON IT.

$$\text{Length of the scale} = \frac{1}{12} \times 100000$$

- 15 cm

- 6 cm

$$= 6 \times \frac{1}{12} \times 100000$$

$$\rightarrow R.F. = \frac{1}{100}$$

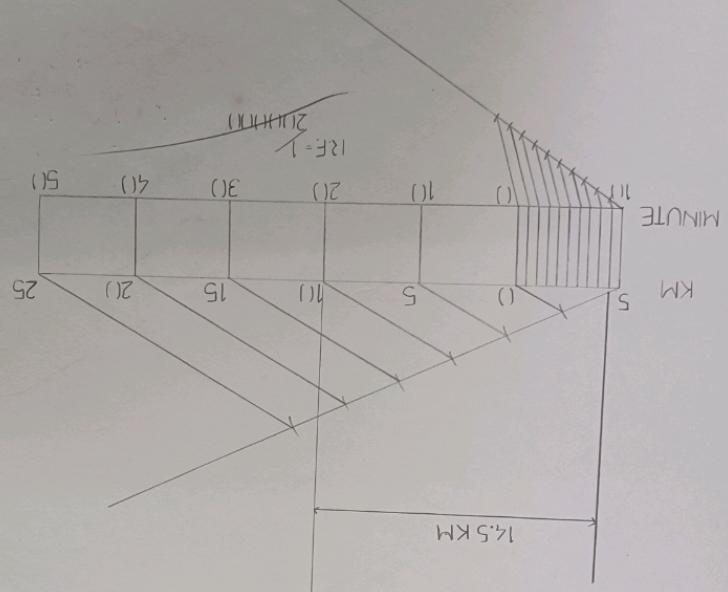
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-

ON 1:4 A DISTANCE OF 6 CM AND 6 DM
TO MEASURE MAXIMUM DISTANCE OF 6 CM. SHOW

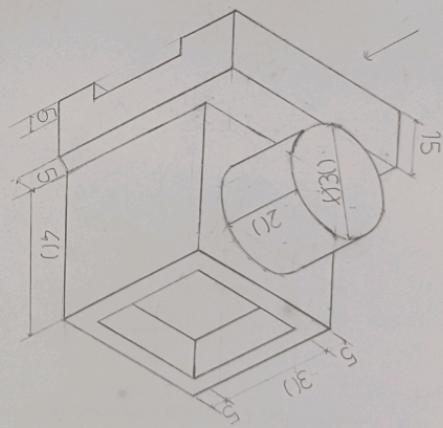
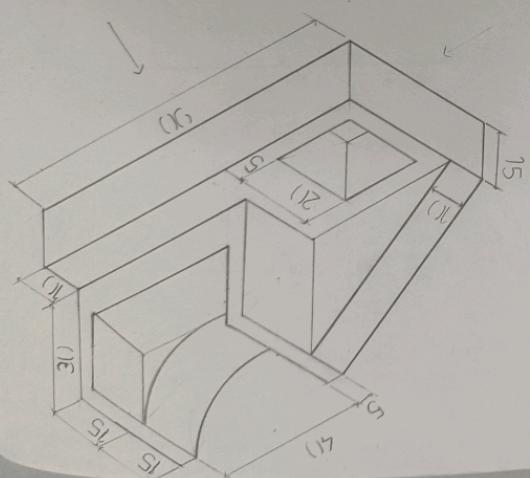
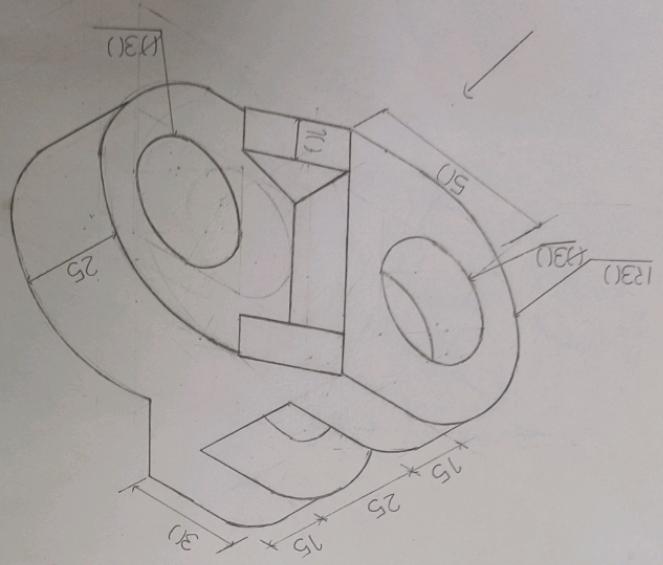
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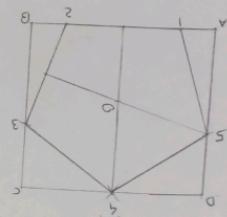
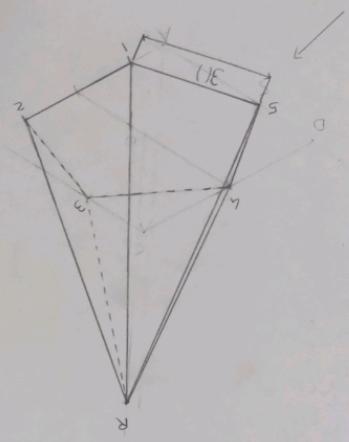
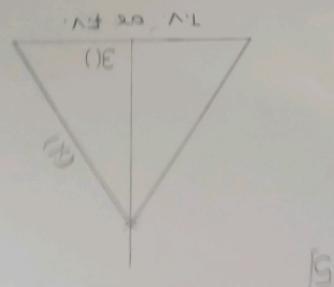
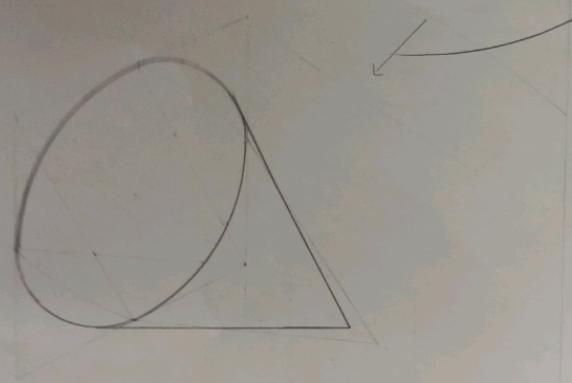
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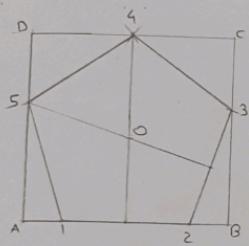
$$\begin{aligned}
 &= 15 \text{ cm} \\
 &= \frac{200,000}{1} \times 30 \times 100000 \text{ cm} \\
 &= 14.5 \text{ km} \\
 &= \frac{60}{29 \times 30} \\
 &= \frac{200,000}{1} \times 30 \text{ km} \\
 &= 29 \text{ min} - 1 (60) \\
 &1 \text{ hour} - 30 \text{ min}
 \end{aligned}$$

3. The distance between two stations is 210 km. A passenger train covers this distance in 7 hours. Construct a plan in scale to measure time up to single minutes. P.F. is $\frac{1}{200,000}$ indicate the distance travelled by train in 29 minutes.
 P.F. = $\frac{1}{200,000}$
 1 hour = 30 min
 length of scale = $\frac{1}{200,000} \times 30 \text{ km}$
 = 15 cm

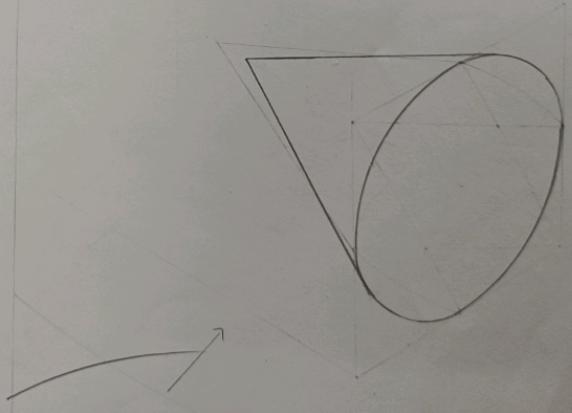
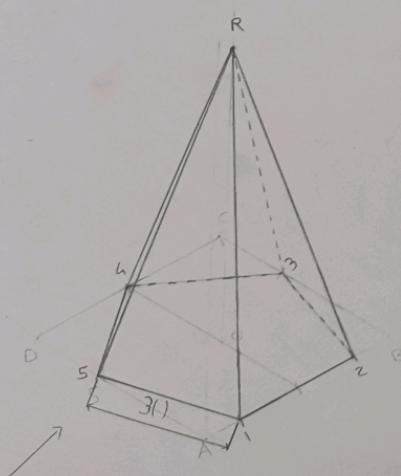
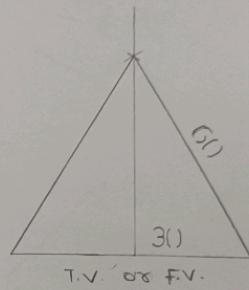




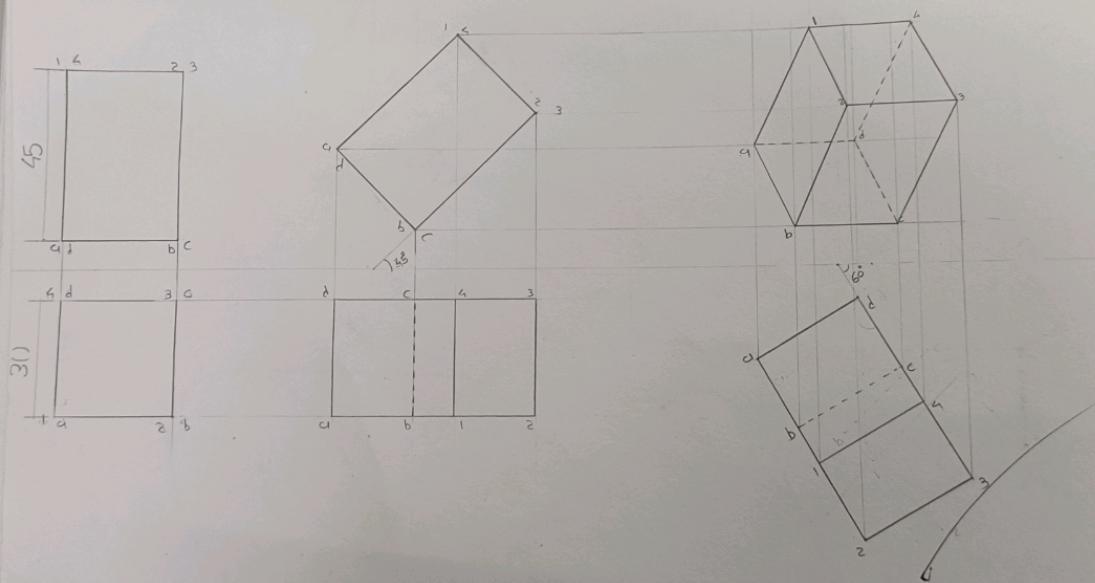
4]



5]

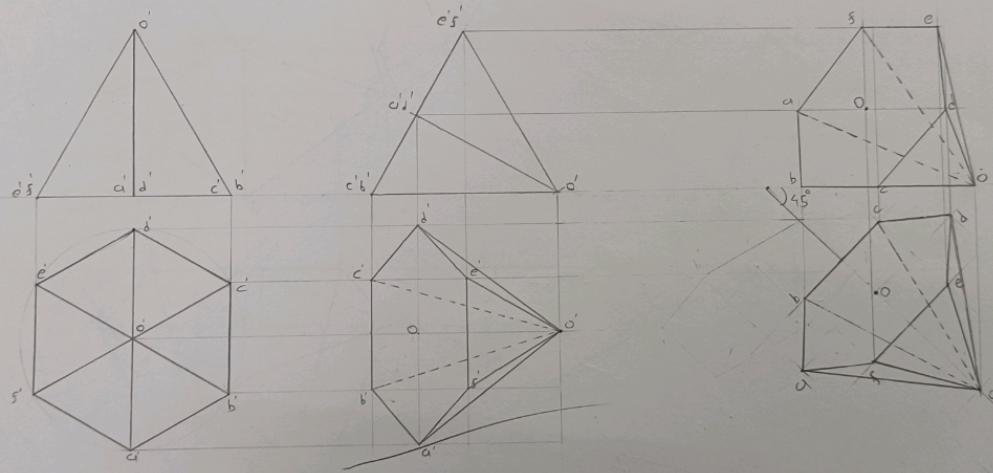


1] A square Prism side of base 30 mm and height 45 mm is resting on HP on one of the edges of the base. The side on which it rests on HP makes 45° with VP. Rectangular face containing that edge on which rests on HP makes an angle 60° with HP. Draw the projections of the Prism.



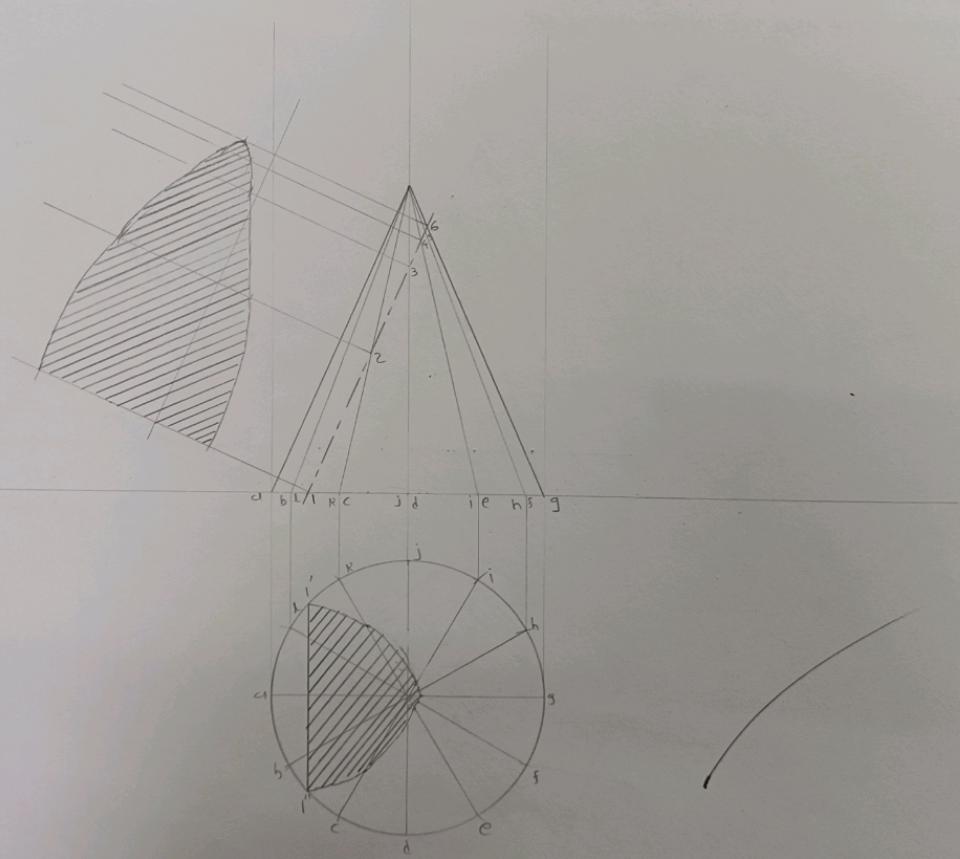
the base
rests on

- 2) A hexagonal Pyramid of 30 mm side of base and 45 mm length of axis is resting on one of its triangular faces on H.P. Draw the projections of the Pyramid when its edge of base which is in H.P. is inclined at 60° to the V.P.



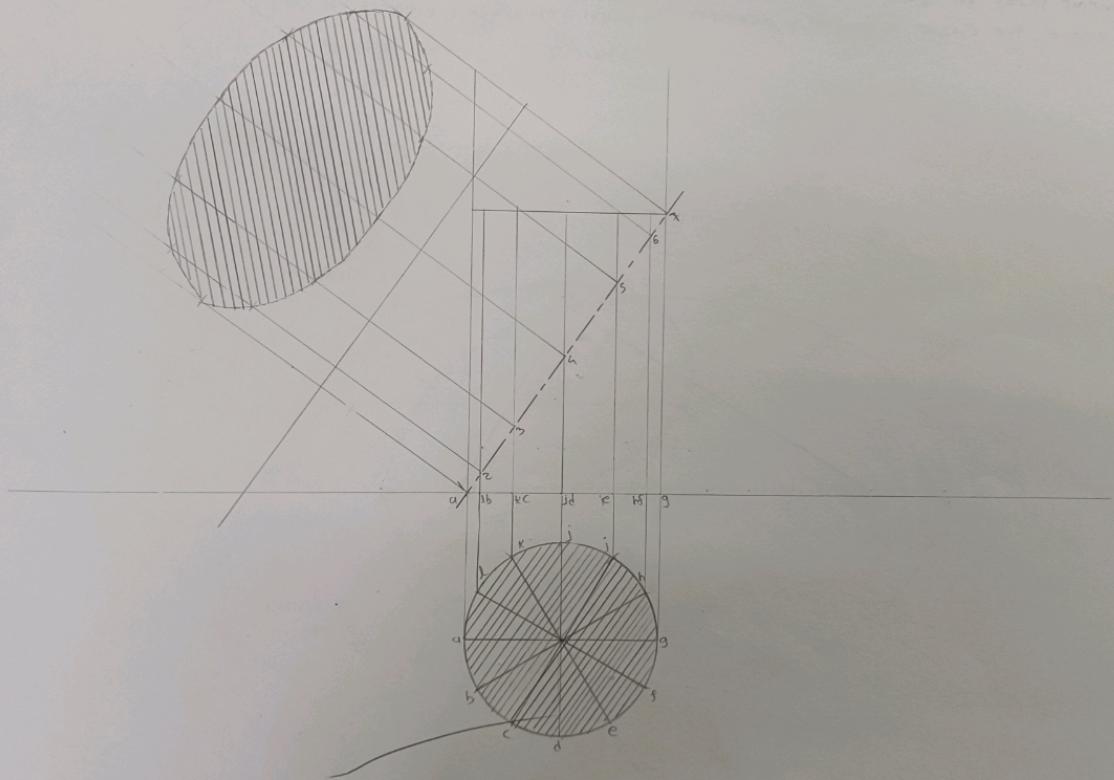
2] A cone of diameter 70 mm & 80 mm height is cut by a section plane such that the true shape of section is Parabola of 70 mm axis and true shape available in plan. find the inclination of section plane with both the reference plane and axis of cone.

3] A cone cuts it hyperbola section.



section
with

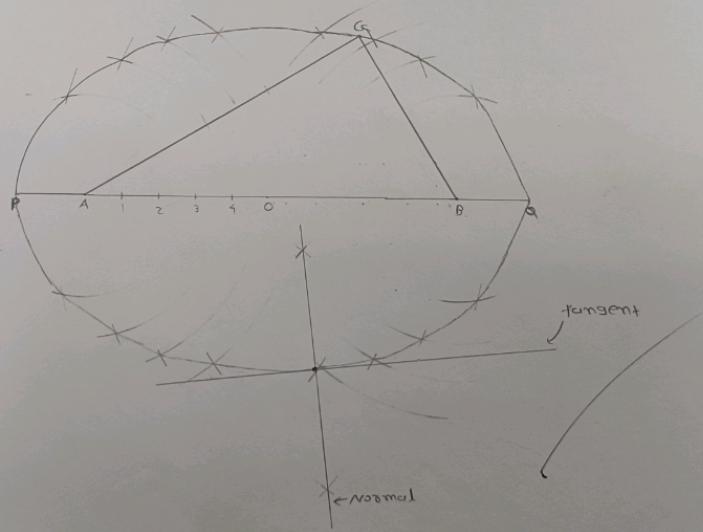
3] A cone having base diameter of 50 mm and axis 60 mm long is resting on its base on HP. A section plane cuts it perpendicular to both the reference planes in such a way that the true shape of the section is hyperbola of 45 mm base. Draw projection of the cone; show position of section plane and true shape of the section.



* Engineering Curves:

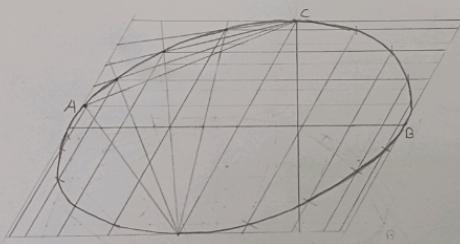
- 1) The distance between two coplanar fixed points is 110 mm. Trace the complete Path of a point G moving in the same plane in such a way that the sum of the distance from the fixed points is always 150 mm. Name the curve & find its eccentricity. Draw normal and tangent at any point on the curve.

2] Two points through



Point C moving
points is always
on the curve

2] Two points A & B are 100mm apart. A point C is 75mm from A and 45 mm from B. Draw an ellipse through points A, B and C so that AB is a major axis.



- Ex-1] 3] ABCD is a rectangle of 100×60 mm. Draw an ellipse through all the four corners of A, B, C & D of the rectangle considering mid points of the smaller sides of focal points. Use concentric circle method and find its eccentricity. Draw normal and tangent at any point on the curve.

